IN THE CLAIMS

Please amend claims 1, 16, 18, 19, 21, 23, 25, 26, and 29 as indicated below.

1. (Currently Amended) A method for processing a semiconductor substrate, said method comprising:

providing a trench isolation structure, said structure including a multi-layer film stack on a plurality of device regions of said substrate, said device regions separated from one another by one or more trenches, where each of said one or more trenches is substantially filled with an oxide;

performing a first polish, said first polish comprising polishing said oxide to ~~the~~ a level of a first polish stop layer of said multi-film stack; and

performing a second polish, said second polish comprising polishing said oxide to ~~the~~ a level of a second polish stop layer of said multi-film stack.

2. (Original) The method of Claim 1, wherein providing a trench isolation structure includes depositing said multi-film stack on said substrate.

3. (Original) The method of Claim 2, wherein providing a trench isolation structure further includes etching said trenches through said multi-film stack and into corresponding underlying portions of said substrate.

4. (Original) The method of Claim 3, wherein providing a trench isolation structure further includes substantially filling said trenches with said oxide.

5. (Original) The method of Claim 1, wherein said multi-layer film stack further includes a first oxide layer and a second oxide layer, said first oxide layer disposed between said first polish stop layer and said second polish stop layer, and said second oxide layer disposed between said second polish stop layer and said substrate.

6. (Original) The method of Claim 5, further comprising removing said first oxide layer subsequent to performing said first polish step.

7. (Original) The method of Claim 1, wherein said first and second polish stop layers comprise nitride layers.

8. (Original) The method of Claim 1, further comprising removing said first polish stop layer subsequent to performing said first polish.

9. (Original) The method of Claim 1, further comprising removing said second polish stop layer subsequent to performing said second polish.

10. (Previously Presented) A method for processing a semiconductor substrate, said method comprising:

providing a multi-layer film stack comprising a second oxide layer disposed above said substrate, a second nitride layer disposed above said second oxide layer, a first oxide layer disposed above said second nitride layer, and a first nitride layer disposed above said first oxide layer, said multi-layer film stack disposed on first and second device regions of said substrate, wherein said first and second device regions are separated by one or more trenches;

depositing a trench oxide that both fills said one or more trenches and covers said first nitride layer; and

polishing said trench oxide.

11. (Original) The method of Claim 10, wherein polishing said trench oxide comprises a first polish, said first polish comprising polishing said trench oxide to expose said first nitride layer.

12. (Original) The method of Claim 11, wherein polishing said trench oxide further comprises a second polish, said second polish comprising polishing said trench oxide to expose said second nitride layer.

13. (Original) The method of Claim 10, further comprising removing said first nitride layer.

14. (Original) The method of Claim 10, further comprising removing said first oxide layer.

15. (Original) The method of Claim 10, further comprising removing said second nitride layer.

16. (Currently Amended) The method of Claim 10, wherein ~~the~~ a thickness of said first nitride layer is between about 1000 and about 2500 angstroms.

17. (Original) The method of Claim 16, wherein the thickness of said first nitride layer is about 2000 angstroms.

18. (Currently Amended) The method of Claim 10, wherein said first nitride layer is deposited using a PECVD ~~methods~~ method.

19. (Currently Amended) The method of Claim 10, wherein ~~the~~ a thickness of said first oxide layer is between about 100 and about 400 angstroms.

20. (Original) The method of Claim 19, wherein the thickness of said first oxide layer is about 200 angstroms.

21. (Currently Amended) The method of Claim 10, wherein ~~the~~ a thickness of said second nitride layer is between about 300 and about 700 angstroms.

22. (Original) The method of Claim 21, wherein the thickness of said second nitride layer is about 500 angstroms.

23. (Currently Amended) The method of Claim 10, wherein said second nitride layer is formed using a PECVD ~~methods~~ method.

24. (Original) The method of Claim 10, wherein said first device region is larger than said second device region.

25. (Currently Amended) The method of Claim 10, wherein subsequent to polishing said trench oxide, a first device height difference equal to ~~the~~ a height difference between ~~the~~ a top of said trench oxide at a first edge of said first device region and ~~the~~ a top of said second oxide layer at said first edge of said first device region is approximately equal to a second device height difference, said second device height difference equal to ~~the~~ a height difference between ~~the~~ a top of said trench oxide at a first edge of said second device region and ~~the~~ a top of said second oxide layer at said first edge of said second device region.

26. (Currently Amended) The method of Claim 25, wherein said first device height difference and said second device height

difference are approximately equal to ~~the~~ a thickness of said second nitride layer.

27. (Original) The method of Claim 25, wherein said first device region is larger than said second device region.

28. (Original) The method of Claim 10, further comprising growing a passivation oxidation layer prior to depositing said trench oxide.

29. (Currently Amended) A method for processing a semiconductor substrate, said method comprising:

depositing a second oxide layer over said substrate;

depositing a second nitride layer over said second oxide layer;

depositing a first oxide layer over said second nitride layer;

depositing a first nitride layer over said first oxide layer, said first and second oxide layers and first and second nitride layers comprising a multi-layer film stack;

etching through the first nitride layer, the first oxide layer, the second nitride layer, and the second oxide layer of said multi-layer film stack and corresponding underlying portions of said substrate to form at least two trenches; and

depositing an oxide that both fills said at least two trenches and covers said first nitride layer.

30. (Previously Presented) The method of Claim 29, further comprising polishing said oxide to expose said first nitride layer.

31. (Original) The method of Claim 30, wherein said polishing includes chemical mechanical polishing using a slurry.

32. (Original) The method of Claim 31, wherein said slurry includes cerium.

33. (Original) The method of Claim 30, further comprising removing said first nitride layer.

34. (Original) The method of Claim 33, wherein said first nitride layer is removed using a hot phosphoric acid etch.

35. (Original) The method of Claim 33, further comprising removing said first oxide layer.

36. (Original) The method of Claim 35, wherein said first oxide layer is removed by reactive ion etching.

37. (Original) The method of Claim 35, further comprising polishing said oxide to expose said second nitride layer.

38. (Original) The method of Claim 37, wherein said polishing includes chemical mechanical polishing using a slurry.

39. (Original) The method of Claim 38, wherein said slurry includes cerium.

40. (Original) The method of Claim 37, further comprising removing said second nitride layer.

41. (Original) The method of Claim 40, wherein said second nitride layer is removed using a hot phosphoric acid etch.

42. (Original) The method of Claim 29, further comprising growing a passivation oxidation layer prior to depositing said oxide to fill said trenches and cover said first nitride layer.